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# A CASE OF ELECTRIC SHOCK OF ONE THOUSAND VOLTS; INSENSIBILITY OF PATIENT TO PAIN; RECOVERY.

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I AM indebted to the courtesy of my colleague, Dr. W. M. L. Coplin, for the privilege of reporting the following case.

On the 20th of April, 1894, J. R., aged forty-four years, while engaged in repairing broken wires for the Bell Telephone Company, grasped the ends of a wire that had crossed an electric light wire, conveying one thousand volts. He received the full force of the current through his body, and was immediately rendered unconscious. He was thrown violently to the ground, and could not be released until the current was broken by a fellow-lineman, who cut the wires apart with a hatchet.

The man was brought to St. Mary's Hospital at 11 A.M., within half an hour of the accident, and I saw him a few minutes after his admission. He was in profound coma, with pupils widely dilated and irresponsive to light, breathing stertorous, face pale and bathed in perspiration. About ten minutes later he vomited, and then became wildly delirious, so that it required the combined efforts of three men to keep him in bed. He moaned and cried incoherently, and tonic and clonic convulsions of a severe type succeeded each other with

great rapidity. At this time we were unable to take his temperature on account of his extreme restlessness, but to the hand it appeared about normal. His respirations now lost their stertorous character, and became more of the Cheyne-Stokes variety, averaging about ten per minute for two hours after his admission. The pulse was 80 per minute, of high tension.

At 11.40 A.M. the man was given morphin, gr. $\frac{1}{4}$, by hypodermatic injection; and as the delirium and convulsions did not abate, the injection was repeated at 12.10, and soon afterward he gradually quieted down. About 1.30 P.M., as his respirations were alarmingly feeble, he was given strychnin, gr. $\frac{1}{30}$, by hypodermatic injection with excellent effect. At 2 P.M. he fell into an apparently normal sleep, from which he awoke four hours later, conscious, but slightly dazed, and feeling, as he expressed it, "tired and sore all over." On my visit to the hospital next morning I found that he had slept well during the night; his temperature was 98.8°, his pulse 72, his respiration 18. He complained of pain from a number of severe burns that he received during his contact with the wire. These burns were distributed irregularly in lines over the back, arms and legs, and evidently were caused by the intensity of the current, as the clothing which covered the affected areas showed no signs of having been scorched.

On questioning the patient as to the nature of the accident, he remembered perfectly all of the incidents of his morning's work up to the time when he grasped the wire that conveyed the shock through his body. After that moment he had not the slightest knowledge of what had occurred, and did not suffer the least pain until he awoke at 6 P. M., as already stated, to find himself in bed in the hospital.

The subsequent history of the case was uneventful. The patient made an excellent recovery.

In view of the employment of electricity by the author-

ities of certain States for the purpose of putting condemned criminals to death, the facts of the case related are of interest. Dr. J. W. Brown[1] has published the history of an electrocution that took place at the prison at Auburn, N. Y., in which the condemned man received a voltage of 1260 through his body for fifty-six seconds, and, being apparently dead, he was released from the straps. To the horror of those present, he gasped for breath and began to revive. He was placed again in the chair, but the current would not work, so that he was removed to the hospital, and developed a train of symptoms precisely similar to those observed in the case that I have reported. A second contact an hour and fifteen minutes later resulted in death in forty seconds. The case attracted great attention at the time, from the supposed agony of the condemned man, who was regarded by the newspapers as a hero on account of his sufferings. According to the statement of our patient, he was absolutely insensible to pain from the instant he received the shock: even the actual discharge of the current caused him no suffering; and were it not for the burning of his skin, he would not have been aware that he had met with an accident.

While it is to be regretted that the public is greatly exposed to accident from contact with currents of high tension on account of the almost universal employment of electricity as a motive and lighting power in our large cities, it seems to me that, so long as capital punishment has to be enforced as a legal penalty, the electric current, properly applied and of sufficiently high tension, is the most humane agent yet devised for putting condemned criminals to death.

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[1] Medical Record, New York, 1893, vol. xliv, p. 222.

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